Switches

AT-8700XL,
Advanced Layer 2 to 4 Access Switches

AT-8724XL, 24 port x 10/100TX Layer 2 to 4 switch
with essential Layer 3 functionality and 2 expansion bays
AT-8748XL, 48 port x 10/100TX Layer 2 to 4 switch
with essential Layer 3 functionality and 2 expansion bays

Performance

The AT-8724XL and AT-8748XL are Layer 2 to 4 devices with essential Layer 3 functionality. These desktop multi-media switches bring traffic control and high performance to the edge of the network.

The 8700XL series of Advanced Fast Ethernet Switch series are advanced Layer 2 – 4 devices with essential Layer 3 functionality desktop multi-media switch that brings a high level of security and traffic control to the edge of your network. With IP routing capabilities for investment protection and flexible management tools, the 8700XL series is designed to be a cost effective solution for today with the ability to expand as network demands grow - at no extra cost.

Specially designed for high-performance desktop edge connectivity, workgroup, mid-sized networks, campus and metro access edge, the 8700XL series provides Layer 4 functionality to support multi-media services like voice and video applications which are becoming more and more integrated into data networks.

The 8700XL series of intelligent switches includes Quality of Service (QoS) features such as wirespeed Layer 4 traffic classifiers, bandwidth limiting, DiffServ and hardware access control lists that are particularly useful for multi-tenant unit, multi business unit, Telco, or service provider applications.

Rich feature set

The 8700XL series of switches are some of the most powerful switches on the market. All 8700XL Layer 2 to 4 switches include a suite of advanced switching features such as IEEE IEEE 802.1Q VLAN Tagging, IGMPv2, and 802.1p Traffic Prioritisation of packets at Layer 2, and broadcast storm protection.

Bandwidth limiting

All 8700XL series switches come with asymmetric bidirectional bandwidth limiting at no additional cost. This is an ideal feature for customers needing to allocate the amount of bandwidth on a per port basis. With bandwidth limiting, network administrators can define throughput levels for each port and control access based on type of end user. These features are ideal for managing different applications like VoIP, Web browsing, video, e-mail, and to regain control of traffic across the network. The 8700XL series' bandwidth limiting feature provides fine granularity with the ability to define ingress limits down to 64kbps segments and egress limits down to 1Mbps segments. The segment definitions can be asymmetric and each port can be set to different values. An additional benefit is that loop back ports are not required.

Cost effectiveness

The 8700XL series enables a cost effective network by efficiently using bandwidth from the access edge to the core. The 8700XL series accomplishes this with a combination of traffic prioritisation and security filtering. With these features, rogue traffic is not forwarded thus preventing unnecessary load on the network backbone and central servers.

Wirespeed routing

A rich set of features is included to provide full support for multimedia Layer 4 applications. All switches include Layer 3 IP Static Routing, RIP, RIPv2, IGMPv2 and OSPFv2 routing protocols.

Key features

- Full QoS for multimedia applications
- Wirespeed Layer 2 to 3 filtering
- Wirespeed Layer 2 switching
- Wirespeed Layer 3 IP routing
- Non-blocking at full line rate for all packet sizes (AT-8724XL)
- Port trunking with Link aggregation
- Stacking with open standards based interfaces
- Supports up to 255 VLANs
- Private VLANs
- Bandwidth limiting
- IP RIPv1/v2
- OSPFv2 support
- VRRP support
- Rapid Spanning Tree protocol
- SSH for management
- SSL
- TACACS+
- IEEE 802.1x
- SNMPv3
- Redundant Power Supply option
- 2 expansion bays
- Lifetime limited warranty

8700XL Series, Advanced Layer 2 to 4 Access Switches

Manageability

The AT-8700XL series offers an extensive suite of management capabilities allowing simple configuration, advanced customizable triggers with an e-mail client and full SNMP and MIB support for unmatched flexibility in monitoring and controlling events.

Stacking

Stacking provides Web and CLI based management of up to nine switches with the same effort as for one switch. The Allied Telesyn solution uses open standards interfaces as stacking links so that many switches can be stacked across different sites, which is not possible using the proprietary stacking cable solutions. Also the use of open standards interfaces avoids the use of expensive specialised hardware with limited topologies.

About Allied Telesyn

Allied Telesyn International is a member of the Allied Telesis Group (ATI) who, founded in 1987, now has offices throughout the globe, over 3,000 employees worldwide and over $600M of worldwide annual revenue. The attributes which have led ATI to achieve its leading position in both the enterprise, operator and connectivity business segments can be summarised by four key elements: its business focus on networking technology for professional markets, where ATI has proved to be the only company capable of providing a total end-to-end solution at a high price/performance ratio; the ability to handle every aspect of its own products from design to marketing; the development of components and solutions which accommodate flexible, efficient and reliable network construction; support from sound warranty terms and quality services. Allied Telesyn connects the IP world efficiently thanks to affordable and highly reliable network solutions. For more information see: www.alliedtelesyneurope.com <http://www.alliedtelesyn.com>

Service & Support

Allied Telesyn provides value-added support services for its customers under its Net.Cover® programs. For more information on Net.Cover® support programs available in your area, contact your Allied Telesyn sales representative or visit our website.
www.alliedtelesyn.com

PERFORMANCE

AT-8724XL	9.6Gbps switching fabric, 6.6Mpps forwarding rate
AT-8748XL	9.6 x 2 = 19.2Gbps switching fabric, 10.1Mpps forwarding rate

14,880pps for 10Mbps Ethernet
148,800pps for 100Mbps Ethernet
1,488,000pps for 1000Mbps Ethernet

MAC addresses	8,000
Buffer Memory	4MB
VLANs	255

Auto-negotiation speed and duplex
Auto MDI/MDI-X

RELIABILITY

AT-8724XL	2,860,000 hrs. MTBF
AT-8748XL	810,000 hrs. MTBF

INTERFACE CONNECTIONS

10/100TX	Shielded RJ45
100FX	Multi-mode fibre SC or MT
1000SX	Multi-mode fibre SC
1000LX	Single-mode fibre SC
1000T	Shielded RJ45

POWER CHARACTERISTICS

Voltage	100-240V AC
Frequency	50-60Hz
Power consumption max.	95W

ENVIRONMENTAL SPECIFICATIONS

Operating Temp	0°C to 40°C (32°F to 104°F)
Non-Operating Temp	–25°C to 70°C (–13°F to 158°F)
Relative Humidity	95% non-condensing

PHYSICAL CHARACTERISTICS

Height	6.6cm (2.6")
Width	44cm (17.3")
Depth	35.6cm (14")
Weight	5.5kg (12 lbs.)

Mounting 19" rackmountable, hardware included

ELECTRICAL/MECHANICAL APROVALS

UL 1950
CSA 22.2 No. 950
EN 60950 (TUV)
FCC Class A
EN55022 Class A
EN500082-1
VCCI Class A

COUNTRY OF ORIGIN

Singapore

Allied Telesyn

8700XL Series, Advanced Layer 2 to 4 Access Switches

SUMMARY OF FEATURES

Operation
- RADIUS
- TACACS
- CLI
- Flash
- HTTP client/server
- GUI
- Remote Security Officer
- User Authentication Database
- Editor
- Mail
- Release/patch licences
- LOAD via ASYN, TFTP, HTTP, LDAP

Switching
- Layer 2 Switching (port settings like ageing timer, mirroring, learning, trunking, link aggregation, broadcast storm protection, port security)
- STP
- VLANs
- VLAN Relay
- Layer 2 filtering
- Hardware Packet filters (classifier-based, L3 filters)
- RSTP
- Bandwidth limiting
- Broadcast Forwarding
- DSCP classification (Diffserv)
- Egress queues = 4
- MAC addresses = 8,000

GARP
Classifier
QoS
IP
- DHCP
- RIP
- OSPF
- DNS Relay
- PING, Traceroute, Finger
- BOOTP
- Static multicast forwarding
- Traffic/route/priority filtering

IP Multicasting
- MVR
- IGMP
- IGMP snooping
- IGMP proxy

Logging
Test Facility
NTP
Trigger Facility
Scripting
SNMP v2c
VRRP
Secure Shell (SSH)
PKI
SSL

STANDARDS & PROTOCOLS

ENCRYPTION

FIPS 46	DES
FIPS 180	SHA-1
FIPS 186	RSA
RFC 2104	HMAC

ETHERNET

IEEE 802.1D	MAC Bridges
IEEE 802.2	Logical Link Control
IEEE 802.3u	100T
IEEE 802.3x	Full-duplex Operation
IEEE 802.3z	Gigabit ethernet
IEEE 802.3ab	1000T
IEEE 802.3ac	VLAN TAG
IEEE 802.3ad	(static) Link Aggregation
IEEE 802.1Q	Virtual LANs
RFC 894	Ethernet II Encapsulation

GENERAL ROUTING

RFC 1918	IP Addressing
RFC 791	IP
RFC 950	Subnetting, ICMP
RFC 1812	Router Requirements
RFC 1055	SLIP
RFC 1122	Internet Host Requirements
RFC 792	ICMP
RFC 1288	Finger
RFC 2131	DHCP
RFC 1542	BootP
RFC 826	ARP
RFC 925	Multi-LAN ARP
RFC 3232	Assigned Numbers
RFC 2822	Internet Message Format
RFC 903	Reverse ARP
RFC 1027	Proxy ARP
RFC 793	TCP
RFC 768	UDP
RFC 1144	Van Jacobson's Compression
ISO 9542	End System to Intermediate System Protocol
RFC 2390	Inverse Address Resolution Protocol
RFC 1142	OSI IS-IS Intra-domain Routing Protocol

ISO 10589, ISO 10589 Technical Corrigendums 1, 2, 3, ISO Intermediate System-to-Intermediate System

IP MULTICASTING

RFC 2236	IGMPv2

MANAGEMENT

RFC 1155	MIB
RFC 1213	MIB-II
RFC 1493	Bridge MIB
RFC 2790	Host MIB
RFC 1573	Evolution of the Interfaces Group of MIB-II
RFC 2338	VRRP
RFC 1757	RMON (groups 1,2,3 and 9)
RFC 3416	SNMP v2c
RFC 3418	SNMP v2c MIB
RFC 2674	Definitions of Managed Objects for Bridges with Traffic Classes, Multicast Filtering and Virtual LAN Extensions (VLAN)
RFC 2665	Definitions of Managed Objects for the Ethernet-like Interface Types
RFC 2580	Conformance Statements for SMIv2
RFC 2578	Structure of Management Information version 2 (SMIv2)
RFC 2096	IP Forwarding Table MIB
RFC 2012	SNMPv2 MIB for TCP using SMIv2
RFC 2011	SNMPv2 MIB for IP using SMIv2
RFC 1515	Definitions of Managed Objects for IEEE 802.3 MAUs
RFC 2856	Textual Conventions for Additional High Capacity Data Types
RFC 2579	Textual Conventions for SMIv2
RFC 1212	Concise MIB definitions
RFC 2576	Co-existence of SNMPv1, v2 and v3
RFC 3410	Introduction to SNMPv3
RFC 3411	An Architecture (SNMP)
RFC 3412	MPD for SNMPv3
RFC 3413	SNMPv3 Applications
RFC 3414	USM for SNMPv3
RFC 3415	VACM for SNMPv3
RFC 3416	Protocol Operation for SNMPv3
RFC 3417	Transport Mappings for SNMPv3
RFC 3418	MIB for SNMPv3
RFC 2578	SMIv2
RFC 2579	Textual Conventions for SMIv2
RFC 2580	Conformance Statements for SMIv2
RFC 2104	Keyed-Hashing for Message Authentication

OSPF

RFC 1245	OSPF protocol analysis
RFC 1246	Experience with the OSPF protocol
RFC 1583	OSPFv2
RFC 1793	Extending OSPF to support Demand Circuits

QoS

RFC 1349	Type of Service in the IP Suite
RFC 2475	An Architecture for Differentiated Services
IEEE 802.1p	Priority Tagging

RIP

RFC 1058	RIPv1
RFC 1723	RIPv2

STP/RSTP

IEEE 802.1w	2001 RSTP
IEEE 802.1t	2001 IEEE 802.1D maintenance

SECURITY

IEEE 802.1x Port Based Network Access Control

draft-ylonen-ssh-protocol-00.txt SSH Remote Login Protocol

RFC 1779	X.500 String Representation of Distinguished Names
RFC 2459	X.509 Certificate and CRL profile
RFC 2511	X.509 Certificate Request Message Format
RFC 2559	PKI X.509 LDAPv2
RFC 2587	PKI X.509 LDAPv2 Schema
RFC 2510	PKI X.509 Certificate Management Protocols
RFC 2585	PKI X.509 Operational Protocols
PKCS #10	Certificate Request Syntax Standard

Draft-IETF-PKIX-CMP-Transport-Protocols-01 Transport Protocols for CMP

RFC 2865	RADIUS
RFC 2866	RADIUS Accounting
RFC 1492	TACACS

SERVICES

RFC 2821	SMTP
RFC 2049	MIME
RFC 1945	HTTP/1.0
RFC 1985	SMTP Service Extension
RFC 1305	NTPv3
RFC 1510	Network Authentication
RFC 2156	PPPoE
RFC 854	Telnet Protocol Specification
RFC 856	Telnet Binary Transmission
RFC 857	Telnet Echo Option
RFC 858	Telnet Suppress Go Ahead Option
RFC 1091	Telnet terminal-type option
RFC 1350	TFTP
RFC 932	Subnetwork addressing scheme
RFC 1179	Line printer daemon protocol

SSL

RFC 2246	The TLS Protocol v1.0.

draft-freier-ssl-version3-02.txt SSLv3

ORDERING INFORMATION

AT-8724XL-xx

24 port x 10/100TX managed Layer 2 to 4 switch with essential Layer 3 functionality with RJ45 connectors and 2 expansion bays

AT-8748XL-xx

48 port x 10/100TX managed Layer 2 to 4 switch with essential Layer 3 functionality with RJ45 connectors and 2 expansion bays

Where xx =
- 10 for U.S. power cord
- 20 for no power cord
- 30 for U.K. power cord
- 40 for Australian power cord
- 50 for European power cord
- 80 for -48v power supply

Uplink Modules

AT-A35SX/SC	1 x 1000SX (SC) Gigabit fibre
AT-A35LX/SC	1 x 1000LX (SC) Gigabit fibre
AT-A39T	1 x 1000T (RJ45) Gigabit copper
AT-A40/SC	1 x 100FX (SC) Multi-mode fibre
AT-A40/MT	1 x 100FX (MT) Multi-mode fibre
AT-A41/SC	1 x 100FX (SC) Single-mode fibre
AT-A41/MT	1 x 100FX (MT) Single-mode fibre
AT-A42	1 x Unpopulated GBIC module

Gigabit Interface Converter (GBIC) Modules

(for use with AT-42)

AT-G8SX
550m SX GBIC, based on 50 Micron fibre
300m SX GBIC, based on 62.5 Micron fibre

AT-G8LX10
10km LX GBIC, based on 9 Micron fibre

AT-G8LX25
25km LX GBIC, based on 9 Micron fibre

AT-G8LX40
40km LX GBIC, based on 9 Micron fibre

AT-G8LX70
70km LX GBIC, based on 9 Micron fibre

AT-G9T
1000T copper GBIC

Redundant Power Supplies

AT-RPS8000-xx
4 slot Redundant Power Supply chassis, includes one power module

AT-PWR8000
Redundant Power Supply module

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